

## REMARKS

Responsive to the Official Action mailed July 7, 2003, Applicant provides the following remarks. Reconsideration and allowance of the subject application, as amended, are respectfully requested.

### Claim Amendments

Independent claim 1 has been amended to more particularly point out that a “first set” of transmission signals propagates through a “first amplifying fiber segment” and a “second set” of transmission signals propagates through a “second amplifying fiber segment.” Claims 1 and 13 have been amended to more particularly point out that the “second set” of transmission signals is different from the “first set” of transmission signals. Corresponding amendments have been made throughout the claims depending from claim 1 for consistency with amended claims 1.

No new matter has been added. Support for the claim amendments may be found throughout the specification, e.g. at page 5, lines 15-17.

### 35 U.S.C. §102(e) Rejection

Claims 1-3, 6, 8, 9, 13, 14 and 17 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Delavaux et al. (US Pat. No. 6,583,925). The Examiner particularly refers to FIG. 7 of Delavaux. Applicant respectfully traverses this rejection.

Delavaux in FIG. 7 teaches a multi-stage amplifier 70. Col. 5, lines 45-47. The amplifier includes first, second and third stages, each of which includes a separate section of co-doped

optical fiber. Col. 5, lines 47-55. A single input signal  $P_{in}$  propagates serially through each of the amplifier stages. Col. 5, lines 55-61. Two pump sources are provided for pumping the three sections of co-doped fiber. Col. 6, lines 10-36. Each section of the fiber is pumped by both sources. Col. 6, lines 10-36.

In contrast, independent claims 1 and 13, as amended, require a “first set” of transmission signals through a “first amplifying fiber segment” and a “second set” of transmission signals through a “second amplifying fiber segment.” Claims 1 and 13 also require that the “second set” of transmission signals be different from the “first set” of transmission signals. The claimed invention thus relates to an amplifier pair for amplifying separate sets of transmission signals.

Applicant finds nothing in Delavaux that teaches or suggests an amplifier pair including a “first set” of transmission signals through a “first amplifying fiber segment” and a “second set” of transmission signals through a “second amplifying fiber segment”, wherein a “first” pump is provided for pumping the first amplifying fiber segment and a “second” pump is provided for pumping the second fiber segment, as required by claims 1 and 13. Since essential limitations of independent claims 1 and 13 are absent from Delavaux, Applicant respectfully submits that the rejection of these claims under 35 U.S.C. § 102(e) should be withdrawn upon reconsideration. Claims 1-3, 6, 8, and 9 depend from claim 1, and claims 14 and 17 depend from claim 13. These claims are in condition for allowance by virtue of their dependency for the reasons adduced above, as well as for their own limitations.

**35 U.S.C. §103 Rejection**

Claims 4, 5, 7, 10, 11, 12, 15 and 16 have been rejected under 35 U.S.C. § 103 as being obvious in view of by Delavaux et al. (US Pat. No. 6,583,925). Applicant respectfully traverses this rejection.

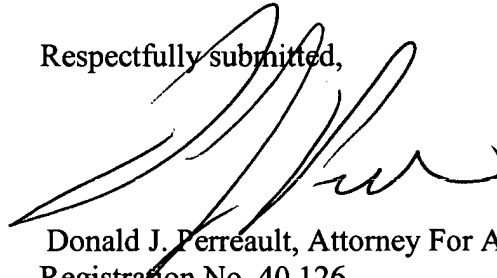
Claims 4, 5, 7, 10, 11 and 12 depend, directly or indirectly, from claim 1, and claims 15 and 16 depend directly from claim 13. Claims 1 and 13 are allowable over Delavaux for the reasons adduced above. Claims 4, 5, 7, 10, 11, 12, 15 and 16 are thus in condition for allowance by virtue of their dependency, as well as for their own limitations. It is respectfully submitted, therefore, that the rejection of these claims under 35 U.S.C. § 103 should be withdrawn upon reconsideration.

In light of the foregoing claim amendments and remark, Applicant respectfully submits that all of the presently pending claims are now in a condition for allowance. Reexamination and reconsideration are respectfully requested.

Early allowance is earnestly solicited. In the event the Examiner deems personal contact desirable in disposition of this application, the Examiner is respectfully requested to call the undersigned attorney at (603) 668-6560.

No fees are believed to be due. In the event there are any fee deficiencies, please charge them (or credit any overpayment) to our Deposit Account No. 50-2121.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'D. Perreault', written over the closing text.

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